REMARKS

Claims 1-25 are pending.

Applicants' Response to the Claim Rejections under 35 U.S.C. § 102

Claims 1, 6, 7, 9, 10, 14, 17, 20, 21 and 23 are rejected under 35 U.S.C. § 102(b) as being anticipated by Iba et al. (JP 10-268294A). In response thereto applicants respectfully traverse on the basis that Iba does not teach each and every feature of the claimed invention. Specifically, Iba does not teach a polarizer whose in-plane retardation at a measurement wavelength providing no absorption is in a range of 950 to 1350 nm.

The Office Action cites to the teachings of Ida at paragraph [0035] and Table 2 at paragraph [0036]. Paragraph [0035] refers to a polarizer of polyvinyl alcohol "processed with iodine" with a thickness of 60 micrometers. The Office considers this equivalent to the requirement of claim 1 for a dichroic material in a matrix. Further, the paragraph refers to Table 2 as disclosing refractive index Nx of the "transparency shaft orientations" and refractive index Ny of "absorption shaft orientations." The Office maintains that when the calculation for in-plane retardation as set forth on page 4, line 6 of applicants' specification is performed based on the disclosures of table 2 of Iba that the in-plane retardation would be 1200nm; and hence, within applicants' claimed range. However, because of the following reasons, the in-plane retardation of the polarizer described in Iba is not in a range of 950 to 1350 nm.

Specifically, the thicknesses of the polarizing plates are not described in Iba. Therefore, the thicknesses of the polarizing plates must be estimated from the description "using a polarizer

having an uniaxial anisotropy that is obtained by treating a film with a thickness of 60 μm consisted of polyvinyl alcohol with iodine" in Example 2 of Iba et al. Applicants respectfully submit that the Office does not take into account the fact that the treated film is subsequently stretched. In view of state of the art at the time of the Iba application, a polyvinyl alcohol film with a thickness of 60 μm is stretched uniaxially by 5 to 6 times. The thickness of a polarizing plate to be obtained in this case will be about 24 to 27 μm. When the stretched film thickness (d) is taken into account, it becomes clear that the film of Iba does not teach the required range of applicants' claim 1.

Applicants have calculated the in-plane retardations of the polarizing plates 5-8 in Iba by using the values of the refractive indexes described in Table 2 thereof. In order to provide thorough examples, (i.e. even if the film were stretched not uniaxially but biaxially), the thickness of the polarizing plates for the examples in Iba are set forth within a range of 20 to 30 μm. This range would be standard in order to maintain the polarization characteristics of the Iba films. Accordingly, the table below assumes that the thickness of each of the polarizing plates 5-8 is 20, 25, or 30 μm.

The in-plane retardations are calculated from the formula:

$$\Delta nd = (nx-ny) \cdot d$$

wherein nx and ny are taken from the values in Table 2 of Iba as set forth in the Office Action.

Estimated in-plane retardation of polarizing plates 5-8 in Iba et al.

Polarizing plates				Δ nd(nm) = (nx-ny) • d		
	nx	ny	nx-ny	When thickness is 20μm	When thickness is 25μm	When thickness is 30μm
polarizing plate 5	1.51	1.49	0.02	400	500	600
polarizing plate 6	1.55	1.45	0.1	2000	2500	3000
polarizing plate 7	1.6	1.4	0.2	4000	5000	6000
polarizing plate 8	1.7	1.2	0.5	10000	12500	15000

As can be seen in the table above, the in-plane retardations of the polarizing plates 5-8 are not in the claimed range of 950 to 1350 nm. Therefore, Iba fails to describe a polarizer having each and every feature as set forth in applicants' claim 1. Wherefore, applicants respectfully submit that the present invention is not anticipated under 35 U.S.C. §102.

Applicants' Response to the Claim Rejections under 35 U.S.C. § 103

Claims 2 and 3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Iba et al. (JP 10-268294A) in view of Harita et al. (US 2001/0039319 A1). Claims 4 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Iba et al. (JP 10-268294A) in view of Sugino et al. (JP 2002333522). Claims 8, 16, 19, 22 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Iba et al. (JP 10-268294A) in view of Honda et al. (US 2001/0033349 A1). Claims 11-13, 18 and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Iba et al. (JP 10-268294A) in view of Yoshimi et al. (JP 2001311826).

Applicants respectfully submit that as the rejection of the dependent claims depend in part on the rejection of claim 1 under Iba, by addressing the rejection thereof as described above, the rejection of the dependent claims is likewise addressed. Specifically, even if Iba and other references are combined, the claimed polarizer whose in-plane retardation at a measurement wavelength providing no absorption is in a range of 950 to 1350nm cannot be obtained. Accordingly, the present invention is not obvious under 35 U.S.C. §103.
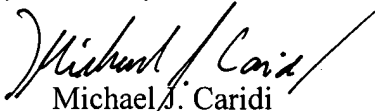
In view of the above remarks, Applicants submit that that the claims, as previously presented, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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